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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/887,824	06/22/2001	John Reader Hubbell	05222,00145	7884	
	11/03/20/4		EXAMINER		
	WITCOFF AND ATT ER DRIVE, 30TH FLOO	STARKS, WILBERT L			
CHICAGO, I			ART UNIT	PAPER NUMBER	
			2121		

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

*·		Applicati	on No.	Applicant(s)		
		09/887,8	24	HUBBELL ET AL.		
	Office Action Summary	Examine	r	Art Unit		
			Starks, Jr.	2121		
Period fo	The MAILING DATE of this communic or Reply	ation appears on th	e cover sheet with the	correspondence address		
THE I - External after - If the - If NC - Failu Any	ORTENED STATUTORY PERIOD FO MAILING DATE OF THIS COMMUNIOnsions of time may be available under the provisions or SIX (6) MONTHS from the mailing date of this communication period for reply specified above is less than thirty (30) period for reply is specified above, the maximum stature to reply within the set or extended period for reply were ply received by the Office later than three months afted patent term adjustment. See 37 CFR 1.704(b).	CATION. f 37 CFR 1.136(a). In no expinication. days, a reply within the stautory period will apply and will, by statute, cause the app	vent, however, may a reply be ti tutory minimum of thirty (30) da vill expire SIX (6) MONTHS fron plication to become ABANDONI	mely filed ys will be considered timely. the mailing date of this communication. ED (35 U.S.C. § 133).		
Status						
1)⊠	Responsive to communication(s) filed	on <u>29 <i>July 2004</i></u> .	•			
2a)⊠	This action is FINAL . 28	o)∏ This action is r	non-final.			
3)□	3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.					
Dispositi	on of Claims					
4) Claim(s) 1-54 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) Claim(s) is/are allowed. 6) Claim(s) 1-54 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or election requirement.						
Applicati	Application Papers					
9)[The specification is objected to by the	Examiner.				
10)	10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.					
	Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).					
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority u	ınder 35 U.S.C. § 119					
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 						
2) Notice 3) Information	e of References Cited (PTO-892) te of Draftsperson's Patent Drawing Review (PT mation Disclosure Statement(s) (PTO-1449 or F		4) Interview Summar Paper No(s)/Mail D 5) Notice of Informal 6) Other:			
гаре	r No(s)/Mail Date		o,			

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DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. §101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

the invention as disclosed in claims 1-54 is directed to non-statutory subject matter.

- 2. Claims 1-9, 19-27, 37-45 are clearly not claimed to be practiced on a computer, therefore, it is clear that the claims are not limited to practice in the technological arts.

 On that basis alone, they are clearly nonstatutory.
- 3. Regardless of whether any of the claims are in the technological arts, none of them is limited to practical applications in the technological arts. Examiner finds that *In re Warmerdam*, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994) controls the 35 USC §101 issues on that point for reasons made clear by the Federal Circuit in *AT&T Corp. v. Excel Communications, Inc.*, 50 USPQ2d 1447 (Fed. Cir. 1999). Specifically, the Federal Circuit held that the act of:

...[T]aking several abstract ideas and manipulating them together adds nothing to the basic equation. *AT&T v. Excel* at 1453 quoting *In re Warmerdam*, 33 F.3d 1354, 1360 (Fed. Cir. 1994).

Examiner finds that Applicant's "goal" references are just such abstract ideas.

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4. Furthermore, Applicant has amended the language to recite: "...the goal being associated with a training objective of a student." The word "associated" is undefined and it is unclear whether this word limits the claims to statutory subject matter. Applicant asserts that the "training objective of a student" "limitation" makes the claims statutory, but it is unclear what this phrase has to do with the invention beyond a vague "association" with it. Is the association a close one where the goal is the "training objective", or is it a loose one where they were simply made or considered at the same time...or even just some mental association. Applicant's added phraseology does not clarify these issues and does not limit the claim to statutory subject matter. As such, it makes the disclosure nonstatutory in nature.

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- 5. Further, in claim 10, Applicant recites that the "feedback" or display of information "motivates" accomplishment of a goal. "Motivation" is a human thought and the inclusion of it does not make the invention statutory. Patents are not available for persuasive speech or persuasive information displayed to a user. Such things do not define a composition of matter, apparatus, method, or product of manufacture. They are simply non-functional data not embodied on any medium.
- 6. Examiner bases his position upon guidance provided by the Federal Circuit in *In* re Warmerdam, as interpreted by AT&T v. Excel. This set of precedents is within the same line of cases as the Alappat-State Street Bank decisions and is in complete

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agreement with those decisions. Warmerdam is consistent with State Street's holding that:

Today we hold that the transformation of data, representing <u>discrete dollar amounts</u>, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation because it produces 'a useful, concrete and tangible result" -- a final share price momentarily fixed for recording purposes and even accepted and relied upon by regulatory authorities and in subsequent trades. (emphasis added) State Street Bank at 1601.

- 7. True enough, that case later eliminated the "business method exception" in order to show that business methods were not per se nonstatutory, but the court clearly *did not* go so far as to make business methods *per se statutory*. A plain reading of the excerpt above shows that the Court was *very specific* in its definition of the new *practical application*. It would have been much easier for the court to say that "business methods were per se statutory" than it was to define the practical application in the case as "...the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price..."
- 8. The court was being very specific.
- 9. Additionally, the court was also careful to specify that the "useful, concrete and tangible result" it found was "a final share price momentarily fixed for recording purposes and even accepted and <u>relied upon</u> by regulatory authorities and in subsequent trades." (i.e. the trading activity is the further practical use of the real world

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monetary data beyond the transformation in the computer – i.e., "post-processing activity".)

10. Applicant cites no such specific results to define a useful, concrete and tangible result. Neither does Applicant specify the associated practical application with the kind of specificity the Federal Circuit used.

11. Furthermore, in the case *In re Warmerdam*, the Federal Circuit held that:

...[The dispositive issue for assessing compliance with Section 101 in this case is whether the claim is for a process that goes beyond simply manipulating 'abstract ideas' or 'natural phenomena' ... As the Supreme Court has made clear, '[a]n idea of itself is not patentable, ... taking several abstract ideas and manipulating them together adds nothing to the basic equation. In re Warmerdam 31 USPQ2d at 1759 (emphasis added).

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- 12. Since the Federal Circuit held in *Warmerdam* that this is the "dispositive issue" when it judged the usefulness, concreteness, and tangibility of the claim limitations in that case, Examiner in the present case views this holding as the dispositive issue for determining whether a claim is "useful, concrete, and tangible" in similar cases.

 Accordingly, the Examiner finds that Applicant manipulated a set of abstract "goals" to solve purely algorithmic problems in the abstract (i.e., what *kind* of "goal" is used?

 Algebraic word problems? Boolean logic problems? Fuzzy logic algorithms?

 Probabilistic word problems? Philosophical ideas? Even vague expressions, about which even reasonable persons could differ as to their meaning? Combinations thereof?) Clearly, a claim for manipulation of "goals" is provably even more abstract (and thereby less limited in practical application) than pure "mathematical algorithms" which the Supreme Court has held are per se nonstatutory in fact, it *includes* the expression of nonstatutory mathematical algorithms.
- 13. Since the claims are not limited to <u>exclude</u> such abstractions, the broadest reasonable interpretation of the claim limitations <u>includes</u> such abstractions. Therefore, the claims are impermissibly abstract under 35 U.S.C. 101 doctrine.

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14. Since Warmerdam is within the Alappat-State Street Bank line of cases, it takes the same view of "useful, concrete, and tangible" the Federal Circuit applied in State Street Bank. Therefore, under State Street Bank, this could not be a "useful, concrete and tangible result". There is only manipulation of abstract ideas.

15. The Federal Circuit validated the use of *Warmerdam* in its more recent *AT&T*Corp. v. Excel Communications, Inc. decision. The Court reminded us that:

Finally, the decision in In re Warmerdam, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994) is not to the contrary. *** The court found that the claimed process did nothing more than manipulate basic mathematical constructs and concluded that 'taking several abstract ideas and manipulating them together adds nothing to the basic equation'; hence, the court held that the claims were properly rejected under §101 ... Whether one agrees with the court's conclusion on the facts, the holding of the case is a straightforward application of the basic principle that mere laws of nature, natural phenomena, and abstract ideas are not within the categories of inventions or discoveries that may be patented under §101. (emphasis added) AT&T Corp. v. Excel Communications, Inc., 50 USPQ2d 1447, 1453 (Fed. Cir. 1999).

- 16. Remember that in *In re Warmerdam*, the Court said that this was the dispositive issue to be considered. In the *AT&T* decision cited above, the Court reaffirms that this is the issue for assessing the "useful, concrete, and tangible" nature of a set of claims under 101 doctrine. Accordingly, Examiner views the *Warmerdam* holding as the dispositive issue in this analogous case.
- 17. The fact that the invention is merely the manipulation of *abstract ideas* is clear. The data referred to by Applicant's word "goal" is simply an abstract construct that does not limit the claims to the transformation of real world data (such as monetary data or heart rhythm data) by some disclosed process. Consequently, the necessary conclusion under *AT&T*, *State Street* and *Warmerdam*, is straightforward and clear. The claims

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take several abstract ideas (i.e., "goals" in the abstract) and manipulate them together adding nothing to the basic equation. Claims 1-22 are, thereby, rejected under 35 U.S.C. 101.

18. Regarding the "system" recitals in claims 10 – 18, 28-36, 46-54, the invention is still found to be nonstatutory. Any other finding would be at variance with current case law. Specifically, the Federal Circuit held in *AT&T v. Excel*, 50 USPQ2d 1447 (Fed. Cir. 1999) that:

Whether stated implicitly or explicitly, we consider the scope of Section 101 to be the same regardless of the form -- machine or process -- in which a particular claim is drafted. AT&T v. Excel, 50 USPQ2d 1447, 1452 citing In re Alappat, 33 F.3d at 1581, 31 USPQ2d at 1589 (Rader, J., concurring) (emphasis added.)

19. Examiner considers the scope of Section 101 to be the same regardless of whether Applicant *claims* a "process", "machine", or "product of manufacture". While the "system" recitals in the preambles of claims 10 – 18, 28-36, 46-54 make the claims ostensibly drawn to be "apparatus" claims, they are insufficient by themselves to <u>limit</u> the claims to statutory subject matter. Examiner's position is clearly consistent with *Alappat*, and *AT&T* and is implicitly consistent with *Warmerdam* and *State Street*. Accordingly, those claims are also properly rejected.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-54 are rejected under 35 USC 112, first paragraph because current case law (and accordingly, the MPEP) require such a rejection if a 101 rejection is given because when Applicant has not in fact disclosed the practical application for the invention, as a matter of law there is no way Applicant could have disclosed *how* to practice the *undisclosed* practical application. This is how the MPEP puts it:

("The how to use prong of section 112 incorporates as a matter of law the requirement of 35 U.S.C. 101 that the specification disclose as a matter of fact a practical utility for the invention.... If the application fails as a matter of fact to satisfy 35 U.S.C. § 101, then the application also fails as a matter of law to enable one of ordinary skill in the art to use the invention under 35 U.S.C. § 112."); In re Kirk, 376 F.2d 936, 942, 153 USPQ 48, 53 (CCPA 1967) ("Necessarily, compliance with § 112 requires a description of how to use presently useful inventions, otherwise an applicant would anomalously be required to teach how to use a useless invention."). See, MPEP 2107.01(IV), quoting In re Kirk (emphasis added).

Therefore, claims 1-54 are rejected on this basis.

- 20. The following is a quotation of the second paragraph of 35 U.S.C. 112:
 - The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 21. Claims 1-54 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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22. Specifically, Applicant has amended the language to recite: "...the goal being associated with a training objective of a student." The word "associated" is undefined and it is unclear whether this word limits the claims to statutory subject matter. Applicant asserts that the "training objective of a student" "limitation" makes the claims statutory, but it is unclear what this phrase has to do with the invention beyond a vague "association" with it. Is the association a close one where the goal is the "training objective", or is it a loose one where they were simply made or considered at the same time...or even just some mental association. Applicant's added phraseology does not limit the claim to statutory subject matter and makes the disclosure vague in that it fails to particularly point out and distinctly claim the subject matter which Applicant regards as the invention under 35 U.S.C. 112 doctrine. This added rejection was necessitated by the amendment, so this rejection remains FINAL in nature.

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Response to Arguments

- 23. Applicant's arguments filed 29 July 2004 have been fully considered but they are not persuasive.
- 24. Specifically, Applicant has amended the language to recite: "...the goal being associated with a training objective of a student." The word "associated" is undefined and it is unclear whether this word limits the claims to statutory subject matter. Applicant asserts that the "training objective of a student" "limitation" makes the claims statutory, but it is unclear what this phrase has to do with the invention beyond a vague "association" with it. Is the association a close one where the goal is the "training

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objective", or is it a loose one where they were simply made or considered at the same time...or even just some mental association. Applicant's added phraseology does not clarify these issues and does not limit the claim to statutory subject matter. As such, it makes the disclosure nonstatutory in nature.

25. Further, in claim 10, Applicant recites that the "feedback" or display of information "motivates" accomplishment of a goal. "Motivation" is a human thought and the inclusion of it does not make the invention statutory. Patents are not available for persuasive speech or persuasive information displayed to a user. Such things do not define a composition of matter, apparatus, method, or product of manufacture. They are simply non-functional data not embodied on any medium.

Conclusion

26. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Wilbert L. Starks, Jr. whose telephone number is (571) 272-3691.

Alternatively, inquiries may be directed to the following:

O. I. E. Althony Kinght (51 1) Et E-5001	S. P. E. Anthony	y Knight	(571) 272-3687
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18 October 2004

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Wilbert L. Starks, Jr. Primary Examiner Art Unit - 2121